

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

FEBRUARY 7, 1962

EXAMINER HEARING

FARMINGTON, N. M.
PHONE 325-1182

DEARNLEY-MEIER REPORTING SERVICE, Inc.

ALBUQUERQUE, N. M.
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IN THE MATTER OF:

Application of O. H. Randel for a 50-acre non-standard oil proration unit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks permission to establish a 50-acre non-standard oil proration unit in the Abo formation, comprising Lot 3 and the North 702 feet of Lot 4, all in Section 19, Township 17 South, Range 31 East, Eddy County, New Mexico, said unit to be dedicated to a well to be drilled at a location 1629 feet from the South line and 537 feet from the west line of said Section 19.

CASE NO.
2490

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We will call Case No. 2490.

MR. WHITFIELD: Case No. 2490: Application of O. H. Randel for a 50-acre non-standard oil proration unit, Eddy County, New Mexico.

(Witness sworn.)

O. H. RANDEL,

called as a witness, having been first duly sworn on oath, was examined and testified as follows:



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MR. RANDEL: I have a short statement that I can read to the Commission, if it please them. It corresponds with our request. It could be put in the record without being read.

MR. NUTTER: I believe, if you will, read this, Mr. Randel.

MR. RANDEL: It is dated February 7, 1962, and addressed to the Commission.

"I am a part owner of (and am associated with and act as representative and agent for the other working interests), Lots 3 and 4 of Section 19, Township 17 South, Range 31 East, Eddy County. We have produced oil from this land for several years out of the Grayburg and Seven Rivers formations. I live in Carlsbad, New Mexico and operate my oil properties from that city..

"Lots 3 and 4 above described contain, according to General Land Office Plats, some 65.32 acres. Normal development of the Abo producing trend has now resulted in one producing Abo well 1/2 mile to the west and another 1/2 mile to the east of a normal location on our lease.

"It is our geological thinking that two wells could very probably be completed upon the 65.32 acre tract by drilling them 660' apart and 330' from the legal subdivision lines. We are reluctant to do this for several reasons.

"1. the investment would be out of line as we would not have the normal two well allowable



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"2. Geologically, we think probably by so doing we might actually miss the very highest crest of the reef and thus be unable to recover oil in the crestal dome

"3. We see no reason to drill two wells so close together merely to have more allowable, as we are confident that one properly located producer can adequately drain the reservoir.

"4. Wastage of steel and material to drill the second well is against the rules of conservation and does promote waste.

"We are therefore asking the Commission to grant permission to drill an unorthodox location and further we are asking the Commission to establish a 50 acre non-standard oil proration unit in the Abo formation comprising Lot 3 and the north 702 feet of Lot 4. In our original application for a hearing, we requested that the well be authorized 1629' from the south line and 537' from the west line. We would like to amend that, if it please the Commission, so as to locate the well 1500' from the south and 537' from the west. This change is minor but fits our geological thinking some better and also became desirable after actually seeing the location in the field. I am not sure whether such change can be made without further hearing, however, we make such plea.

"After careful study, we believe:

"1. That one properly located well will recover more oil than two wells located in orthodox locations

"2. We will, in the long run, be better off with one



good well having a 50 acre allowable than a possible two inferior wells having 65.32 acre allowable.

"3. The saving of material will prevent economic waste. The drilling of the optimum location will promote conservation and actually result in recovery of more oil.

"4. Following the trend of development in the area the probable first location, if two wells were contemplated would be in Lot 3, and the location as herein requested is in Lot 3, - thus, without this hearing the resultant well would be granted a 32-acre allowable. The decision to ask for a 50-acre allowable hinges on the assumption that the north 702 feet of Lot 4 has Abo oil accumulated thereunder. This will be supported by the testimony of our geologist, Vilas P. Sheldon. Admittedly, the line of demarcation is arbitrary, however, we present it as being reasonable and probable.

"Summing up, we contend that we could, by wasteful practices, achieve a 65.32 acre allowable, that we prefer to drill one well with a 50 acre share of the total reservoir contents, that our proposal promotes conservation and prevents waste.

"We do then, respectively, plead the granting of our application, as amended."

MR. NUTTER: Do you have anything further?

A No, I don't know that I do.

MR. NUTTER: Does anyone have any questions they wish to ask Mr. Randel?

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CROSS EXAMINATION

BY MR. MORRIS:

Q Mr. Randel, in your statement, you asked that amendments be made on your application. Have you informed your offset operator to the east and west of you, of your proposed amendment to the application?

A I don't believe so.

Q I believe that the Commission can properly go ahead and, at this Hearing, consider your application as amended, if you will secure a waiver of protest from all of your offset operators, but unless you can submit to us the waiver of protest, we would have to readvertise the matter and bring it on for another hearing.

A Yes.

Q Can you provide the Commission with those waivers within a reasonable time?

A I think we can do that.

MR. MORRIS: That is all.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Randel, in your testimony here, you mentioned that there is one well to the west in Section 24?

A Yes.

Q You mentioned another well located to the west?

A That is the Fran well in the Northwest of the Southeast

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of 19.

Q There is a well in the Northwest of the Southwest of 19?

A Yes, sir. It has been in some thirty days or forty days.

MR. SHELDON: I believe it is in the Southwest of the Southeast.

A That is right. I believe it is the Southwest of the Southeast.

Q (by Mr. Nutter) Do you have a lease plat that you could submit to us, Mr. Randel?

A I believe Mr. Sheldon can probably give you information in connection with that when you are ready for him.

Q I was just wondering where this other well was, trying to determine whether this proposed location will be in the Jackson Abo Pool or the Cedar Lakes Abo Pool, or is it your opinion, Mr. Randel, that these two pools will eventually constitute a single pool?

A That is my opinion.

Q And this development will close the gap between them?

A I believe so.

MR. NUTTER: Any further questions of Mr. Randel?

You may be excused.

(Witness excused.)

MR. NUTTER: Do you wish to call Mr. Sheldon to the stand?

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MR. RANDEL: Yes, I do.

VILAS P. SHELDON,

called as a witness, having been first duly sworn on oath, was examined and testified as follows:

MR. SHELDON: Are my qualifications accepted?

MR. NUTTER: Yes, sir.

MR. SHELDON: I am Vilas P. Sheldon, geologist of the State of New Mexico. We have Exhibit 1 prepared by myself, if we may introduce it in evidence after we have testified to it. Exhibit No. 1 is in two parts. There is a schematic layout of the South half of Section 19, Township 17 South, Range 38, showing Fran Oil Company's Well 16, 17, and the drilling well No. 18. Sixteen and seventeen are satisfactory producers. It also shows, of course, Lots 3 and 4 of the O. H. Randel lease, showing the dimensions thereof and, in a red crayon, the proposed suggested 50-acre units outlined. The unit would be 2,022 feet long and 1,074 feet wide. The map is computed, using information from the Fran wells and from the Nash-Winford and Brown, west a half a mile to the west. Then the other section of the map is a schematic cross section showing the reef, the producing part of the reef, and it ties in directly to the map so that we can project or line it up and find out what would happen on any location we drill on.

It will be noted that the reef is exceedingly narrow, or the producing portion thereof, is exceedingly narrow. It has

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a tremendously steep front. The Fran well No. 17 and 18, a quarter of a mile apart, and almost on this tract.

The No. 18 well was 300 feet higher on the Abo than the 17 was.

The conclusion that I draw from this cross section of the map, of course, is that the ideal location for the Randel well would be in the center or would be 537 feet from the West line and 1500 feet from the South line of the 50-acre unit, or stating it more concisely, it will be 537 feet from the West line and 1140 feet from the North line of Lot 3, Section 19, Township 17 South, Range 31 East.

That is the testimony as I see it.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Sheldon, this well that is in, I presume it is in the Northeast of the Southwest quarter?

A Yes.

Q Directly east of your proposed well, is that a well presently completed or presently being drilled?

A Well, it is to its total depth; it is shut down waiting for orders before it can be completed.

Q Was test made in the Abo?

A Yes.

Q What was the result of that?

A There were four tests made. The first three tests were



gas and the last was water. The oil-water content turned out to be some 2470 minus 2475; it shows up on the cross section.

Q That is the No. 18? Now, the water-oil content was minus 2475?

A Yes.

Q Is it your opinion, if that well had been drilled further south, it would have had a better chance of being a producer?

A Yes, sir, or further north, perhaps. I did not bring an electric log of that well. It will be filed with the Commission, but I do not have it today. The Abo came in at what we thought was tremendously -- it was 6500, it shows here to be minus 3,000, minus a few feet. You see on the cross section, it was very, very high and the top 50 feet of the reef was very poor, very poor; but it contained gas; it is definitely a commercial hydrocarbonite reservoir.

Q Would the fact that the No. 18 well did not produce oil tend to indicate that perhaps there would be some question as to the productivity of the north lot of No. 3?

A Yes.

Q Now, as I understand it, the request is for all of Lot 3 and also the north 702 feet of Lot 4. That is the request?

A Yes, sir.

CROSS EXAMINATION

BY MR. MORRIS:

Q Mr. Sheldon, I am a little confused with the configura-



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tion of Lots 3 and 4. You have a note on your Exhibit that a 40-acre unit would be 1619 feet long, is that correct?

A Yes, I have the note there.

Q How long is the lot?

A Well, if I may reach over, this line here (indicating) does divide Lots 3 and 4. You see, it is what you call a legal quarter section line for the 16 section line. It is obscured by the contouring, but it is there.

Q How long is Lot 3 on the north side?

A It is a standard 1320.

Q Lot 4 is the same?

A Yes.

Q But the lots are narrower?

A Yes, sir.

Q So that according to your calculations, a 40-acre unit will be 1601 feet?

A Yes, sir. This is probably not a geological observation, but if I may state our thinking, as to what the 150-unit will do to the rest of this little narrow Abo field. There are other operators thinking along the same lines. Should they crowd around the same line, citing for an 80-acre allowable, you are running or you are taking the chance of damaging the field by greedily asking for greater allowables, or should it be developed to the best scientific knowledge that we can provide, which admittedly is not going to be very good with our trial and



error or mistake method.

Q Mr. Sheldon, I agree that it is necessary in every instance of this type for the Commission to arrive at the productive average within your leasehold interests here, in order that a well not be assigned and an allowable, a proportional allowable greater than its productive range. What is your estimate in the east and west directions?

A I think I understand your question; it would be very difficult for me to answer the question. Certainly, I cannot answer it from a geological or from an expert's standpoint. I certainly don't want to evade the issue. All I can say is that if and so long as these operators who are managing the wells are willing to dig in the so-called orthodox locations, they would get 40 acres every time they completed a well, even though practically anybody that knew anything about the well knew that there was only one little corner that likely had oil. Of course, as you well know and I well know, it is very difficult to get very dogmatic on just exactly where oil might be in an oil field. It is almost impossible to start ruling certain corners of the certain leases out. Just as soon as one of us gets that smart, some one calls a location and shows us we don't know hardly anything about it.

I really don't know how to answer your question. It would be --

Q Mr. Sheldon, does Mr. Randel now own all of Lots 3 and



4?

A Yes.

Q A 40-acre proration unit could be created, could it not by including the south 810 feet of Lot 3 and the north 810 feet of Lot 4?

A Yes, just so it was 1619 feet long.

Q So, you could create a 40-acre unit in this area by taking half of -- well, not half, but an equal share from Lots 3 and 4?

A Yes.

Q If such a 40-acre unit were formed, do you feel that 40-acre unit would be right on top of the trend?

A The south part of Lot 3 and north part of Lot 4?

Q Right.

A Yes, sir.

Q You feel that it would?

A Yes, sir.

Q Then you would propose to drill your well how far south, rather how far north of the lot line?

A Well, we wouldn't move the location any.

Q How far north of the south line of Lot 3 was your well located?

A One hundred eighty feet -- well, we are going back to the question of the correlative rights there, because that depends on what the other location is. If the owners on the east and

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west crowd his line, then Mr. Randel is going to lose oil and I presume that economics will force him to try to protect himself. It seems to me we are facing the large question of what is waste and what is conservation.

MR. NUTTER: I have no further questions.

Does anyone have any further questions of Mr. Sheldon?

You may be excused, Mr. Sheldon.

(Witness excused.)

MR. MORRIS: I would like to, before the case is taken under advisement, to remind the applicant that no action at all can be taken upon your unorthodox location request until the waiver of protest is received from each of your offset operators.

MR. RANDEL: Yes, is that all three directions?

MR. SHELDON: Well, it will be just three of them.

MR. NUTTER: Do you have anything you wish to offer in this case, Mr. Randel?

MR. RANDEL: No, sir. I don't believe so.

MR. NUTTER: We will take the case under advisement and take a fifteen-minute recess.

(Recess taken at 3:05 o'clock p.m.)



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